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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XD445

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to a Pier Replacement Project

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; issuance of an incidental harassment authorization.

SUMMARY: In accordance with the regulations implementing the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that we have issued an incidental harassment authorization (IHA) to the U.S. Navy (Navy) to incidentally harass, by Level B harassment only, six species of marine mammals during construction activities associated with a pier replacement project at Naval Base Point Loma, San Diego, California.

DATES: This authorization is effective from October 8, 2014, through October 7, 2015.

FOR FURTHER INFORMATION CONTACT: Ben Laws, Office of Protected Resources, NMFS, (301) 427-8401.

SUPPLEMENTARY INFORMATION:

Availability

An electronic copy of the Navy's application and supporting documents, as well as a list of the references cited in this document, may be obtained by visiting the Internet at:

www.nmfs.noaa.gov/pr/permits/incidental/construction.htm. A memorandum describing our adoption of the Navy's Environmental Assessment (2013) and our associated Finding of No

Significant Impact, prepared pursuant to the National Environmental Policy Act, are also available at the same site. In case of problems accessing these documents, please call the contact listed above (see FOR FURTHER INFORMATION CONTACT).

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 et seq.) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined "negligible impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Section 101(a)(5)(D) of the MMPA established an expedited process by which citizens of the U.S. can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Section 101(a)(5)(D) establishes a 45-day time limit for NMFS review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of marine mammals. Within 45 days of the close of

the comment period, NMFS must either issue or deny the authorization. Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as "any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment]."

Summary of Request

On July 8, 2014, we received a request from the Navy for authorization to take marine mammals incidental to pile installation and removal associated with a pier replacement project in San Diego Bay at Naval Base Point Loma in San Diego, CA (NBPL), followed on July 14, 2014, by a draft monitoring report for activities conducted under the previous IHA issued for this project. We reviewed these documents and provided a request for additional information to the Navy on August 5, 2014; the Navy submitted revised versions of the request on August 14 and August 19, 2014, the latter of which we deemed adequate and complete. The pier replacement project is planned to occur over four years; this IHA is valid only for the second year of work, from October 8, 2014, through October 7, 2015. Hereafter, use of the generic term "pile driving" may refer to both pile installation and removal unless otherwise noted.

The use of both vibratory and impact pile driving during the pier replacement project is expected to produce underwater sound at levels that have the potential to result in behavioral harassment of marine mammals. Species with the expected potential to be present during all or a portion of the in-water work window include the California sea lion (*Zalophus californianus*), harbor seal (*Phoca vitulina richardii*), bottlenose dolphin (*Tursiops truncatus truncatus*), gray whale (*Eschrichtius robustus*), and either short-beaked or long-beaked common dolphins

(Delphinus spp.). California sea lions are present year-round and are common in the project area, while bottlenose dolphins may be present year-round, but sightings are highly variable in Navy marine mammal surveys of northern San Diego Bay. Harbor seals are also common but have limited occurrence in the project area in comparison with sea lions. Gray whales may be observed in San Diego Bay sporadically during migration periods. Common dolphins are known to occur in nearshore waters outside San Diego Bay, but are only rarely observed near or in the bay.

This is the second such IHA issued to the Navy for this project, following the IHA issued effective from September 1, 2013, through August 31, 2014 (78 FR 44539). A monitoring report for the first IHA is available on the Internet at www.nmfs.noaa.gov/pr/permits/incidental/construction.htm, and it provides environmental information related to issuance of this IHA.

Description of the Specified Activity

Overview

NBPL provides berthing and support services for Navy submarines and other fleet assets. The existing fuel pier serves as a fuel depot for loading and unloading tankers and Navy underway replenishment vessels that refuel ships at sea (“oilers”), as well as transferring fuel to local replenishment vessels and other small craft operating in San Diego Bay, and is the only active Navy fueling facility in southern California. Portions of the pier are over one hundred years old, while the newer segment was constructed in 1942. The pier as a whole is significantly past its design service life and does not meet current construction standards.

Over the course of four years, the Navy plans to demolish and remove the existing pier and associated pipelines and appurtenances while simultaneously replacing it with a generally

similar structure that meets relevant standards for seismic strength and is designed to better accommodate modern Navy ships. Demolition and construction are planned to occur in two phases to maintain the fueling capabilities of the existing pier while the new pier is being constructed. During the second year of construction (the specified activity considered under this IHA), approximately 272 piles (18- to 36-in steel pipe piles) will be installed and 402 piles will be removed (via multiple methods) over the course of a maximum 135 in-water construction days. The maximum 135 days of in-water construction pertains to impact and vibratory pile driving, as well as pneumatic chipping (unless required project monitoring demonstrates that this activity does not have the potential to result in the incidental take of marine mammals). Pile removal may occur via other methods beyond this 135-day limit. All steel piles will be driven with a vibratory hammer for their initial embedment depths and finished with an impact hammer, as necessary.

The planned actions with the potential to incidentally harass marine mammals within the waters adjacent to NBPL are vibratory and impact pile installation and removal of piles via vibratory hammer or pneumatic chipper. Concurrent use of multiple pile driving rigs is not planned; however, pile removal conducted as part of demolition activities (which could occur via a number of techniques other than use of a vibratory hammer) is expected to occur concurrently with pile installation conducted as part of construction activities.

Dates and Duration

The entire project is scheduled to occur from 2013-17; the planned activities that would occur during the period of validity for this IHA, during the second year of work, would occur for one year. Under the terms of a memorandum of understanding (MOU) between the Navy and the U.S. Fish and Wildlife Service (FWS), all noise- and turbidity-producing in-water activities in

designated least tern foraging habitat are to be avoided during the period when least terns are present and engaged in nesting and foraging (a window from approximately September 15 through April 1). However, the Navy may extend that window, depending on the nature of the activity and with approval from FWS and it is possible that in-water work, as described below, could occur at any time during the period of validity of this IHA. We expect that in-water work would primarily occur during the October 1-April 1 period. In-water pile driving work is limited to 135 days in total under this IHA. Pile driving will occur during normal working hours (approximately 7 a.m. to 4 p.m.).

Specific Geographic Region

NBPL is located on the peninsula of Point Loma near the mouth and along the northern edge of San Diego Bay (see Figures 1-1 and 1-2 in the Navy's application). San Diego Bay is a narrow, crescent-shaped natural embayment oriented northwest-southeast with an approximate length of 24 km and a total area of roughly 4,500 ha. The width of the bay ranges from 0.3 to 5.8 km, and depths range from 23 m mean lower low water (MLLW) near the tip of Ballast Point to less than 2 m at the southern end (see Figure 2-1 of the Navy's application). San Diego Bay is a heavily urbanized area with a mix of industrial, military, and recreational uses. The northern and central portions of the bay have been shaped by historic dredging to support large ship navigation. Dredging occurs as necessary to maintain constant depth within the navigation channel. Outside the navigation channel, the bay floor consists of platforms at depths that vary slightly. Sediments in northern San Diego Bay are relatively sandy, as tidal currents tend to keep the finer silt and clay fractions in suspension, except in harbors and elsewhere in the lee of structures, where water movement is diminished. Much of the shoreline consists of riprap and manmade structures. San Diego Bay is heavily used by commercial, recreational, and military

vessels, with an average of over 80,000 vessel movements (in or out of the bay) per year (not including recreational boating within the Bay) (see Table 2-2 of the Navy’s application). For more information about the specific geographic region, please see section 2.3 of the Navy’s application.

Detailed Description of Activities

In order to provide context, we described the entire project in our Federal Register notice of proposed authorization associated with the first-year IHA (78 FR 30873; May 23, 2013).

Please see that document for an overview of the entire fuel pier replacement project, or see the Navy’s Environmental Assessment (2013) for more detail. In the notice of proposed authorization associated with the second-year IHA (79 FR 53026; September 5, 2014) we provided an overview of relevant construction methods before describing only the specific project portions scheduled for completion during the second work window. We do not repeat that information here; please refer to that document for more information. Approximately 498 piles in total are planned to be installed for the project, including steel, concrete, and plastic piles. For the second year of work, approximately 272 piles will be installed (all steel pipe piles, 18- to 36-in). Tables 1 and 2 detail the piles to be installed and removed, respectively, under this IHA.

Table 1. Details of piles to be installed

Purpose	Location	Planned timing	Planned number of days	Number per pile diameter (in)			
				18	24	30	36
Indicator Pile Program	Outboard side of existing pier	Fall 2014	1	0	0	0	2
Temporary dolphin	South of existing pier	Fall 2014	5	0	0	10	0
Temporary shoring piles	Existing pier approach and intersection	Fall 2014	5	4	0	0	0
Temporary trestle piles	North of new approach trestle	Fall 2014	14	0	16	0	0
Abutment piles	New pier, along shoreline	Winter 2014-15	10	0	0	0	18 ²
Approach pier	New pier footprint	Fall 2014-Spring 2015	90	0	0	0	104
Fuel pier	New pier footprint	Fall 2014		0	0	0	95
Permanent dolphins	North of existing pier	Spring 2015	10	0	0	23	0
Totals – 272 piles		Fall 2014-Spring 2015	135 ¹	4	16	33	219

¹Numbers of piles, timing, and number of days associated with any particular component of work are subject to change. However, the total of 135 days in-water pile driving is an absolute maximum.

²Land-based abutment piles will not be monitored.

Table 2. Details of piles to be removed

Pile type	Number
Concrete fender piles (14-, 18-, and 24-in)	65
Plastic fender piles (13-in)	29
Timber piles (12-in)	286
Concrete-filled steel caissons	22
Total	402

Description of Work Accomplished

During the first in-water work season, two primary activities were conducted: relocation of the Marine Mammal Program and the Indicator Pile Program. These activities were described in detail in our notice of proposed authorization associated with the second-year IHA (79 FR 53026; September 5, 2014); please see that document for more information.

Comments and Responses

We published a notice of receipt of the Navy's application and proposed IHA in the Federal Register on September 5, 2014 (79 FR 53026). We received a letter from the Marine Mammal Commission; the Commission's comments and our responses are provided here, and the comments have been posted on the Internet at: www.nmfs.noaa.gov/pr/permits/incidental/construction.htm.

San Diego Bay is a busy industrial and recreational water body and, in recognition of the likelihood that ambient sound levels in the bay exceed NMFS' regulatory threshold for continuous noise (i.e., 120-dB rms), the Navy has been measuring ambient sound in the bay in the absence of construction activity per NMFS' guidance (NMFS, 2012). Results of that effort to date show that ambient sound is indeed louder than 120 dB rms, with daily averages of 128 dB rms measured in the vicinity of the project site during the Navy's indicator pile program

conducted as part of the first year of the project; therefore, we substitute the louder value for use in delineating the zones employed in the Navy's mitigation and monitoring strategy (as described in our notice of proposed authorization). The Commission's comments concern the way we use those data for that purpose and the way in which we continue the acoustic monitoring effort designed to further our understanding of ambient sound levels.

Comment 1: The Commission recommends that we require the Navy to use the mean ambient sound level minus at least one standard deviation (based on the three recording periods interspersed throughout the work window) down to the 120-dB re 1 μ Pa threshold as a basis for establishing the Level B harassment zone to fulfill its monitoring and reporting requirements for the authorization and to inform future authorizations.

Response: We disagree with this recommendation. The 128-dB value is reported in accordance with NMFS' 2012 guidance document (NMFS, 2012) on data collection methods to characterize underwater background sound, which says that in order to characterize average conditions, the dB rms level that occurs at least fifty percent of the time should be used as the average background sound in consultations under the MMPA; therefore, the value is appropriately representative of existing data regarding background sound and is consistent with NMFS' guidance.

Comment 2: The Commission recommends that we require the Navy to measure ambient sound levels both to the north and south of the fuel pier site to further refine the spatial differences in ambient sound levels near the project site, and that similar spatially-distributed methods should be used for determining sound propagation in the far-field during installation and removal of various types and sizes of piles to identify the distance at which sound from those activities become indistinguishable from ambient.

Response: We agree with the Commission's second recommendation and have discussed it with the Navy. Acoustic monitoring performed under this IHA will be conducted in accordance with the Commission's recommendation.

Description of Marine Mammals in the Area of the Specified Activity

There are five marine mammal species which are either resident, have known seasonal occurrence, or have been observed recently in San Diego Bay, including the California sea lion, harbor seal, bottlenose dolphin, common dolphin, and gray whale. Note that common dolphins could be either short-beaked (Delphinus delphis delphis) or long-beaked (D. capensis capensis). While it is likely that common dolphins observed in the project area would be long-beaked, as it is the most frequently stranded species in the area from San Diego Bay to the U.S.-Mexico border (Danil and St. Leger, 2011), the species' distributions overlap, and it is unlikely that observers would be able to differentiate them in the field. Therefore, we consider that any common dolphins observed – and any incidental take of common dolphins – could be either species. Navy records and other survey results indicate that other species that occur in the Southern California Bight may have the potential for isolated occurrence within San Diego Bay or just offshore. The Pacific white-sided dolphin (Lagenorhynchus obliquidens) has been sighted along a previously used transect on the opposite side of the Point Loma peninsula (Merkel and Associates, 2008). Risso's dolphin (Grampus griseus) is fairly common in southern California coastal waters (e.g., Campbell et al., 2010), but has not been seen in San Diego Bay. These species have not been observed near the project area and are not expected to occur there, and, given the unlikelihood of their exposure to sound generated from the project, are not considered further.

We have reviewed the Navy’s detailed species descriptions, including life history information, for accuracy and completeness and refer the reader to Sections 3 and 4 of the Navy’s application instead of reprinting the information here. Please also refer to NMFS’ website (www.nmfs.noaa.gov/pr/species/mammals) for generalized species accounts and to the Navy’s Marine Resource Assessment for the Southern California and Point Mugu Operating Areas, which provides information regarding the biology and behavior of the marine resources that may occur in those operating areas (DoN, 2008). The document is publicly available at www.navfac.navy.mil/products_and_services/ev/products_and_services/marine_resources/marine_resource_assessments.html (accessed August 23, 2014). In addition, we provided information for the potentially affected stocks, including details of stock-wide status, trends, and threats, in our Federal Register notice of proposed authorization associated with the first-year IHA (78 FR 30873; May 23, 2013) and refer the reader to that document rather than reprinting the information here. We provided additional information for marine mammals with potential for occurrence in the area of the specified activity in our Federal Register notice of proposed authorization (79 FR 53026; September 5, 2014).

Table 3 lists the marine mammal species with expected potential for occurrence in the vicinity of NBPL during the project timeframe and summarizes key information regarding stock status and abundance. See also Figure 3-2 of the Navy’s application for observed occurrence of marine mammals in the project area. Taxonomically, we follow Committee on Taxonomy (2014). Please see NMFS’ Stock Assessment Reports (SARs), available at www.nmfs.noaa.gov/pr/sars, for more detailed accounts of these stocks’ status and abundance. All potentially affected species are addressed in the Pacific SARs (Carretta et al., 2014).

Table 3. Marine Mammals Potentially Present in the Vicinity of NBPL

Species	Stock	ESA/MMPA status; Strategic (Y/N) ¹	Stock abundance (CV, N _{min} , most recent abundance survey) ²	PBR ³	Annual M/SI ⁴	Relative occurrence in San Diego Bay; season of occurrence
Order Cetartiodactyla – Cetacea – Superfamily Mysticeti (baleen whales)						
Family Eschrichtiidae						
Gray whale	Eastern North Pacific	-; N	19,126 (0.071; 18,017; 2007)	558	127 ⁶	Rare migratory visitor; late winter
Superfamily Odontoceti (toothed whales, dolphins, and porpoises)						
Family Delphinidae						
Bottlenose dolphin	California coastal	-; N	323 ⁵ (0.13; 290; 2005)	2.4	0.2	Occasional; year-round
Short-beaked common dolphin	California/Oregon/Washington	-; N	411,211 (0.21; 343,990; 2008)	3,440	64	Rare; year-round (but more common in warm season)
Long-beaked common dolphin	California	-; N	107,016 (0.42; 76,224; 2009)	610	13.8	Rare; year-round (but more common in warm season)
Order Carnivora – Superfamily Pinnipedia						
Family Otariidae (eared seals and sea lions)						
California sea lion	U.S.	-; N	296,750 (n/a; 153,337; 2008)	9,200	≥431	Abundant; year-round
Family Phocidae (earless seals)						
Harbor seal	California	-; N	30,196 (0.157; 26,667; 2009)	1,600	31	Uncommon and localized; year-round

¹Endangered Species Act (ESA) status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR (see footnote 3) or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

²CV is coefficient of variation; N_{min} is the minimum estimate of stock abundance. In some cases, CV is not applicable. For certain stocks of pinnipeds, abundance estimates are based upon observations of animals (often pups) ashore multiplied by some correction factor derived from knowledge of the species' (or similar species') life history to arrive at a best abundance estimate; therefore, there is no associated CV. In these cases, the minimum abundance may represent actual counts of all animals ashore.

³Potential biological removal, defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population size (OSP).

⁴These values, found in NMFS' SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (e.g., commercial fisheries, subsistence hunting, ship strike). Annual M/SI often cannot be determined precisely and is in some cases presented as a minimum value.

⁵This value is based on photographic mark-recapture surveys conducted along the San Diego coast in 2004-05, but is considered a likely underestimate, as it does not reflect that approximately 35 percent of dolphins encountered lack identifiable dorsal fin marks (Defran and Weller, 1999). If 35 percent of all animals lack distinguishing marks, then the true population size would be closer to 450-500 animals (Carretta *et al.*, 2014).

⁶Includes annual Russian harvest of 123 whales.

Potential Effects of the Specified Activity on Marine Mammals

In our Federal Register notice of proposed authorization associated with the first-year IHA (78 FR 30873; May 23, 2013), we described in detail the potential effects of the Navy's planned activity on marine mammals, including general background information on sound and marine mammal hearing and a description of sound sources and ambient sound. Rather than reprint the information here, we refer the reader to that document. We also provided brief definitions of relevant acoustic terminology in our notice of proposed authorization associated with the second-year IHA (79 FR 53026; September 5, 2014).

Anticipated Effects on Habitat

We described potential impacts to marine mammal habitat, including effects to prey and to foraging habitat, in detail in our Federal Register notice of proposed authorization associated with the first-year IHA (78 FR 30873; May 23, 2013). In summary, given the short daily duration of sound associated with individual pile driving events and the relatively small areas being affected, pile driving activities associated with the planned action are not likely to have a permanent, adverse effect on any fish habitat, or populations of fish species. The area around NBPL is heavily altered with significant levels of industrial and recreational activity, and is unlikely to harbor significant amounts of forage fish. Thus, any impacts to marine mammal habitat are not expected to cause significant or long-term consequences for individual marine mammals or their populations.

Mitigation

In order to issue an IHA under section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable impact on such species or stock and its habitat, paying particular attention to

rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses.

We described a proposed suite of mitigation measures in our Federal Register notice of proposed authorization (79 FR 53026; September 5, 2014). Those mitigation measures were included as conditions in the IHA issued to the Navy, which is available on the Internet at: www.nmfs.noaa.gov/pr/permits/incidental/construction.htm. Please review those documents for information about the specific measures required of the Navy.

We carefully evaluated the Navy's proposed mitigation measures and considered their effectiveness in past implementation to determine whether they are likely to effect the least practicable impact on the affected marine mammal species and stocks and their habitat. Our evaluation of potential measures included consideration of the following factors in relation to one another: (1) the manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals; (2) the proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and (3) the practicability of the measure for applicant implementation.

Based on our evaluation of the Navy's proposed measures, we have determined that the mitigation measures described in our notice of proposed authorization provide the means of effecting the least practicable impact on marine mammal species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Monitoring and Reporting

In order to issue an IHA for an activity, section 101(a)(5)(D) of the MMPA states that NMFS must set forth "requirements pertaining to the monitoring and reporting of such taking." The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for

incidental take authorizations must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present in the proposed action area.

The Navy submitted an Acoustic and Marine Species Monitoring Plan (available at www.nmfs.noaa.gov/pr/permits/incidental/construction.htm). We described the monitoring requirements in detail in our Federal Register notice of proposed authorization (79 FR 53026; September 5, 2014). Those requirements were included as conditions in the IHA issued to the Navy, available at the same location on the Internet. Please review those documents for information about the specific measures required of the Navy. In addition, monitoring results from the previous IHA were described in detail in our notice of proposed authorization and are not repeated here.

We made one substantive change from the proposed measures described in our Federal Register notice of proposed authorization to those included in the final IHA. Instead of requiring at least three vessel-based observers for all pile driving activities, as called for in the proposed IHA, the Navy will be required to have a minimum of two vessel-based observers, and a total of three to seven observers, for all pile driving activities. The total three to seven observers includes (1) a minimum of one observer stationed at the active pile driving rig in order to monitor the shutdown zones; (2) a minimum of two vessel-based observers; and (3) a minimum of one shore-based observer located at the pier work site during impact pile driving. This change was made to more accurately reflect changes made to the second-year monitoring plan in response to lessons learned during the first year of monitoring, and we believe it to represent the most effective alignment of monitoring assets. It is not expected to impact observer coverage and is expected to

increase the effectiveness of the monitoring, and thus does not change our analysis or conclusions described in the Federal Register notice announcing our proposed IHA.

Estimated Take by Incidental Harassment

Except with respect to certain activities not pertinent here, section 3(18) of the MMPA defines “harassment” as: “...any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].”

All anticipated takes would be by Level B harassment resulting from vibratory and impact pile driving and involving temporary changes in behavior. The planned mitigation and monitoring measures are expected to minimize the possibility of injurious or lethal takes such that take by Level A harassment, serious injury, or mortality is considered extremely unlikely. However, it is unlikely that injurious or lethal takes would occur even in the absence of the planned mitigation and monitoring measures.

If a marine mammal responds to a stimulus by changing its behavior (e.g., through relatively minor changes in locomotion direction/speed or vocalization behavior), the response may or may not constitute taking at the individual level, and is unlikely to affect the stock or the species as a whole. However, if a sound source displaces marine mammals from an important feeding or breeding area for a prolonged period, impacts on animals or on the stock or species could potentially be significant (e.g., Lusseau and Bejder, 2007; Weilgart, 2007). Given the many uncertainties in predicting the quantity and types of impacts of sound on marine mammals,

it is common practice to estimate how many animals are likely to be present within a particular distance of a given activity, or exposed to a particular level of sound.

This practice potentially overestimates the numbers of marine mammals taken, in part because it is often difficult to distinguish between the individuals harassed and incidents of harassment. In particular, for stationary activities, it is more likely that some smaller number of individuals may accrue a number of incidents of harassment per individual than for each incident to accrue to a new individual, especially if those individuals display some degree of residency or site fidelity and the impetus to use the site (e.g., because of foraging opportunities) is stronger than the deterrence presented by the harassing stimulus.

The project area is not believed to be particularly important habitat for marine mammals, nor is it considered an area frequented by marine mammals, with the exception of California sea lions, which are attracted to nearby haul-out opportunities. Sightings of other species are relatively rare. Therefore, behavioral disturbances that could result from anthropogenic sound associated with these activities are expected to affect only a relatively small number of individual marine mammals, although those effects could be recurring over the life of the project if the same individuals remain in the project vicinity.

The Navy requested authorization for the potential incidental taking of small numbers of California sea lions, harbor seals, bottlenose dolphins, common dolphins, and gray whales in San Diego Bay and nearby waters that may result from pile driving during construction activities associated with the fuel pier replacement project. In order to estimate the potential incidents of take that may occur incidental to the specified activity, we first estimated the extent of the sound field that may be produced by the activity and then considered that in combination with information about marine mammal density or abundance in the project area. We provided

detailed information on applicable sound thresholds for determining effects to marine mammals and described the information used in estimating the sound fields, the available marine mammal density or abundance information, and the method of estimating potential incidents of take, in our Federal Register notice of proposed authorization (79 FR 53026; September 5, 2014). That information is unchanged, and our take estimates were calculated in the same manner and on the basis of the same information as what was described in the Federal Register notice. Measured distances to relevant thresholds are shown in Table 4 and total estimated incidents of take are shown in Table 5. Please see our Federal Register notice of proposed authorization (79 FR 53026; September 5, 2014) for full details of the process and information used in estimating potential incidents of take.

Table 4. Measured distances to relevant thresholds

Activity	Distance to threshold in meters					
	190 dB	180 dB	160 dB	120 dB	100 dB	90 dB
Impact driving, steel piles (measured)	75	450	2,500	n/a	71	233
Vibratory driving, steel piles (measured)	<10	<10	n/a	3,000	n/a	n/a

Table 5. Calculations for incidental take estimation

Species	Abundance ¹	Total proposed authorized takes ³ (% of total stock)
California sea lion	175	23,625 (8.0)
Harbor seal	7	945 (3.1)
Bottlenose dolphin	3	405 (81.0) ⁴
Common dolphin	6	810 (0.8 [LB]/0.2 [SB]) ⁵
Gray whale	1 ²	90 (0.5)

¹Best available species- and season-specific density estimates were described in our notice of proposed authorization. With the exception of the gray whale (see footnote 2 below), we have determined that in all cases a site-specific abundance estimate is the most appropriate information to use in estimating take.

²Product of density (0.115 animals/km²) and largest ZOI (5.7 km²) rounded to nearest whole number.

³Best abundance numbers multiplied by expected days of activity (135) to produce take estimate. Calculation for gray whale assumes ninety days rather than 135.

⁴Total stock assumed to be 500 for purposes of calculation. See Table 3.

⁵LB = long-beaked; SB = short-beaked.

Analyses and Determinations

Negligible Impact Analysis

NMFS has defined "negligible impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival." A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (i.e., population-level effects). An estimate of the number of Level B harassment takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be "taken" through behavioral harassment, we consider other factors, such as the likely nature of any responses (e.g., intensity, duration), the context of any responses (e.g., critical reproductive time or location, migration), as well as the number and nature of estimated Level A harassment takes, the number of estimated mortalities, and effects on habitat.

Pile driving activities associated with the pier replacement project, as outlined previously, have the potential to disturb or displace marine mammals. Specifically, the specified activities may result in take, in the form of Level B harassment (behavioral disturbance) only, from underwater sounds generated from pile driving. Potential takes could occur if individuals of these species are present in the ensonified zone when pile driving is happening.

No injury, serious injury, or mortality is anticipated given the nature of the activity and measures designed to minimize the possibility of injury to marine mammals. The potential for these outcomes is minimized through the construction method and the implementation of the

planned mitigation measures. Specifically, vibratory hammers will be the primary method of installation, and this activity does not have significant potential to cause injury to marine mammals due to the relatively low source levels produced (site-specific acoustic monitoring data show no source level measurements above 180 dB rms) and the lack of potentially injurious source characteristics. Impact pile driving produces short, sharp pulses with higher peak levels and much sharper rise time to reach those peaks. When impact driving is necessary, required measures (implementation of shutdown zones) significantly reduce any possibility of injury. Given sufficient “notice” through use of soft start (for impact driving), marine mammals are expected to move away from a sound source that is annoying prior to its becoming potentially injurious. The likelihood that marine mammal detection ability by trained observers is high under the environmental conditions described for San Diego Bay (approaching one hundred percent detection rate, as described by trained biologists conducting site-specific surveys) further enables the implementation of shutdowns to avoid injury, serious injury, or mortality.

Effects on individuals that are taken by Level B harassment, on the basis of reports in the literature as well as monitoring from other similar activities, will likely be limited to reactions such as increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring) (e.g., Thorson and Reyff, 2006; HDR, 2012; Lerma, 2014). Most likely, individuals will simply move away from the sound source and be temporarily displaced from the areas of pile driving, although even this reaction has been observed primarily only in association with impact pile driving. In response to vibratory driving, pinnipeds (which may become somewhat habituated to human activity in industrial or urban waterways) have been observed to orient towards and sometimes move towards the sound. The pile driving activities analyzed here are similar to, or less impactful than, numerous other construction activities conducted in San

Francisco Bay and in the Puget Sound region, which have taken place with no reported injuries or mortality to marine mammals, and no known long-term adverse consequences from behavioral harassment. Repeated exposures of individuals to levels of sound that may cause Level B harassment are unlikely to result in hearing impairment or to significantly disrupt foraging behavior. Thus, even repeated Level B harassment of some small subset of the overall stock is unlikely to result in any significant realized decrease in fitness for the affected individuals, and thus would not result in any adverse impact to the stock as a whole. Level B harassment will be reduced to the level of least practicable impact through use of mitigation measures described herein and, if sound produced by project activities is sufficiently disturbing, animals are likely to simply avoid the project area while the activity is occurring.

In summary, this negligible impact analysis is founded on the following factors: (1) the possibility of injury, serious injury, or mortality may reasonably be considered discountable; (2) the anticipated incidents of Level B harassment consist of, at worst, temporary modifications in behavior; (3) the absence of any significant habitat within the project area, including rookeries, significant haul-outs, or known areas or features of special significance for foraging or reproduction; and (4) the presumed efficacy of the planned mitigation measures in reducing the effects of the specified activity to the level of least practicable impact. In addition, these stocks are not listed under the ESA or considered depleted under the MMPA. In combination, we believe that these factors, as well as the available body of evidence from other similar activities, demonstrate that the potential effects of the specified activity will have only short-term effects on individuals. The specified activity is not expected to impact rates of recruitment or survival and will therefore not result in population-level impacts. Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into

consideration the implementation of the planned monitoring and mitigation measures, we find that the total marine mammal take from Navy's pier replacement activities will have a negligible impact on the affected marine mammal species or stocks.

Small Numbers Analysis

The number of incidents of take proposed for authorization for these stocks, with the exception of the coastal bottlenose dolphin (see below), would be considered small relative to the relevant stocks or populations (see Table 5) even if each estimated taking occurred to a new individual. This is an extremely unlikely scenario as, for pinnipeds occurring at the NBPL waterfront, there will almost certainly be some overlap in individuals present day-to-day and in general, there is likely to be some overlap in individuals present day-to-day for animals in estuarine/inland waters.

The numbers of authorized take for bottlenose dolphins are higher relative to the total stock abundance estimate and would not represent small numbers if a significant portion of the take was for new individuals. However, these numbers represent the estimated incidents of take, not the number of individuals taken. That is, it is likely that a relatively small subset of California coastal bottlenose dolphins would be incidentally harassed by project activities. California coastal bottlenose dolphins range from San Francisco Bay to San Diego (and south into Mexico), and the specified activity would be stationary within an enclosed water body that is not recognized as an area of any special significance for coastal bottlenose dolphins (and is therefore not an area of dolphin aggregation, as evident in Navy observational records). We therefore believe that the estimated numbers of takes, were they to occur, likely represent repeated exposures of a much smaller number of bottlenose dolphins and that, based on the

limited region of exposure in comparison with the known distribution of the coastal bottlenose dolphin, these estimated incidents of take represent small numbers of bottlenose dolphins.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the mitigation and monitoring measures, we find that small numbers of marine mammals will be taken relative to the populations of the affected species or stocks.

Impact on Availability of Affected Species for Taking for Subsistence Uses

There are no relevant subsistence uses of marine mammals implicated by this action. Therefore, we have determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act (ESA)

The Navy initiated informal consultation under section 7 of the ESA with NMFS Southwest Regional Office (now West Coast Regional Office) on March 5, 2013. NMFS concluded on May 16, 2013, that the proposed action may affect, but is not likely to adversely affect, western North Pacific (WNP) gray whales. The Navy has not requested authorization of the incidental take of WNP gray whales and no such authorization is proposed, and there are no other ESA-listed marine mammals found in the action area. Therefore, no additional consultation under the ESA is required.

National Environmental Policy Act (NEPA)

In compliance with the NEPA of 1969 (42 U.S.C. 4321 et seq.), as implemented by the regulations published by the Council on Environmental Quality (CEQ; 40 CFR parts 1500-1508), the Navy prepared an Environmental Assessment (EA) to consider the direct, indirect, and

cumulative effects to the human environment resulting from the pier replacement project. We made the Navy's EA available to the public for review and comment, in relation to its suitability for adoption in order to assess the impacts to the human environment of issuance of an IHA to the Navy. In compliance with NEPA, the CEQ regulations, and NOAA Administrative Order 216-6, we subsequently adopted that EA and signed a Finding of No Significant Impact (FONSI) on July 8, 2013.

We have reviewed the Navy's application for a renewed IHA for ongoing construction activities for 2014-15 and the 2013-14 monitoring report. Based on that review, we have determined that the proposed action is very similar to that considered in the previous IHA. In addition, no significant new circumstances or information relevant to environmental concerns have been identified. Thus, we have determined that the preparation of a new or supplemental NEPA document is not necessary, and, after review of public comments, reaffirm our 2013 FONSI. The 2013 NEPA documents are available for review at www.nmfs.noaa.gov/pr/permits/incidental/construction.htm.

Authorization

As a result of these determinations, we have issued an IHA to the Navy for conducting the described pier maintenance activities in San Diego Bay, from October 8, 2014 through October 7, 2015, provided the previously described mitigation, monitoring, and reporting requirements are incorporated.

Dated: October 29, 2014

Wanda L. Cain,
Acting Director,
Office of Protected Resources,
National Marine Fisheries Service.

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